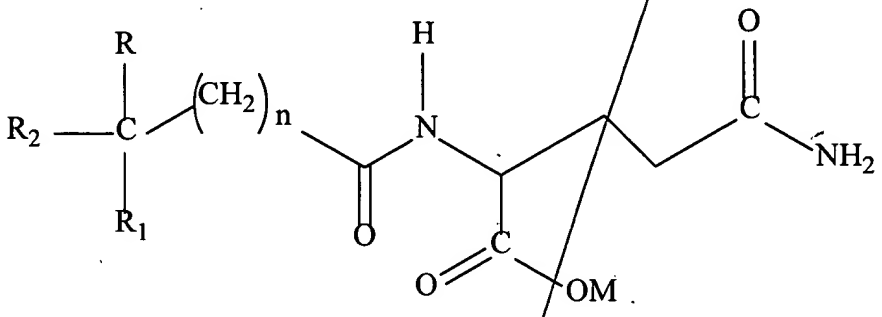
WHAT IS CLAIMED IS:

1. A method for the treatment or inhibition of hypercholesterolemia or hypertriglyceridemia, comprising the step of:

administering a composition comprising a therapeutically-effective amount of a compound of either Formula I:

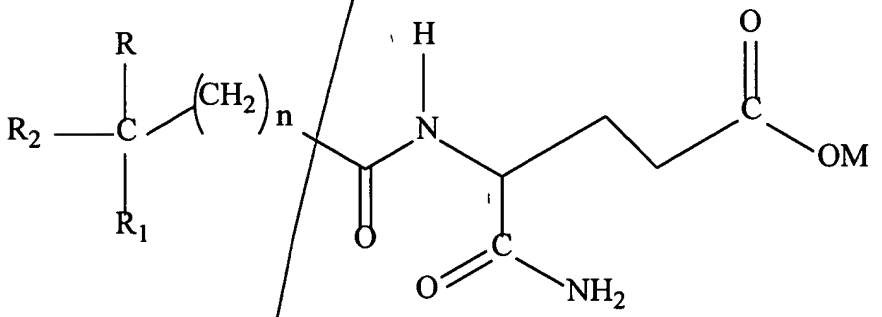
Formula I



wherein R and R_1 are independently selected from the group consisting of H, lower alkoxy (C_{1-6}), or lower alkyl (C_{1-6}); R_2 is selected from the group consisting of aryl (C_{6-12}) and substituted aryl; M is hydrogen, sodium, potassium, ammonium, diethanolamine, cyclohexylamine, a naturally-occurring amino acid of MW less than 500 kD, lower alkyl (C_{1-6}), cycloalkyl, or aryl (C_{6-12}); and n is 0-5;

Formula III:

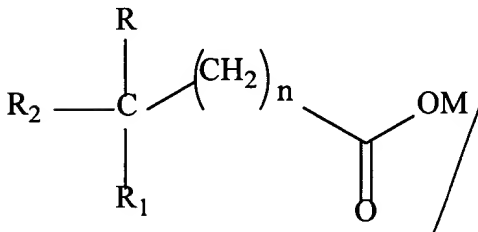
Formula III



wherein R and R_1 are independently selected from the group consisting of H, lower alkoxy (C_{1-6}), or lower alkyl (C_{1-6}); R_2 is selected from the group consisting of aryl (C_{6-12}) and substituted aryl; M is hydrogen, sodium, potassium, ammonium, diethanolamine, cyclohexylamine, a naturally-occurring amino acid of MW less than 500 kD, lower alkyl (C_{1-6}), cycloalkyl, or aryl (C_{6-12}); and n is 0-5;

or Formula IV:

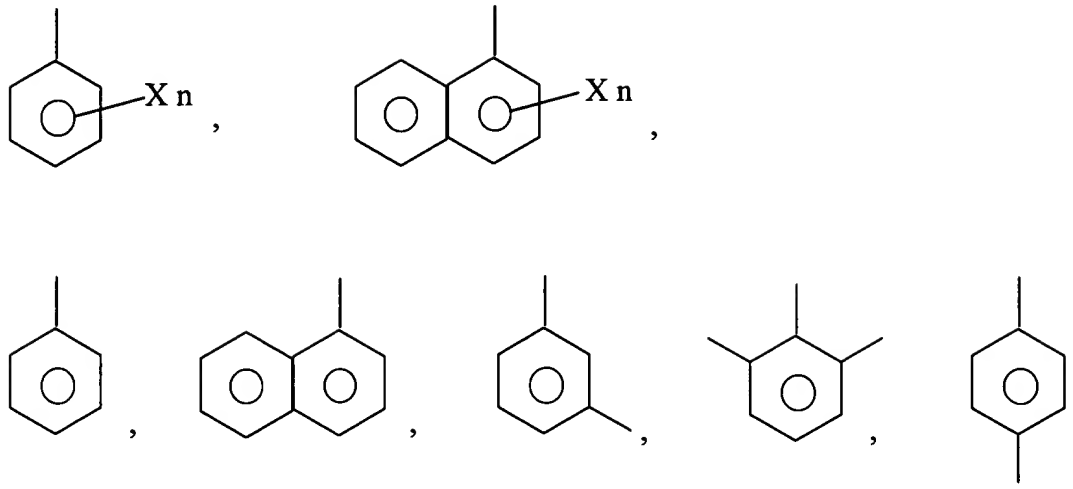
Formula IV



wherein R and R_1 are independently selected from the group consisting of H, lower alkoxy (C_{1-6}), or lower alkyl (C_{1-6}); R_2 is selected from the group consisting of aryl (C_{6-12}) and substituted aryl; M is hydrogen, sodium, potassium, ammonium, diethanolamine, cyclohexylamine, a naturally-occurring amino acid of MW less than 500 kD, lower alkyl (C_{1-6}), cycloalkyl, or aryl (C_{6-12}); and n is 0-5.

2. The method of claim 1, wherein in said composition M is hydrogen, potassium or sodium; n is 0-2; R and R_1 are independently selected from the group consisting of H and C_3H_7; R_1 is selected from the group consisting of H, CH_3, CH_3-O-, C_2H_5, and C_3H_7; and R_2 is an aryl (C_{6-12}) or a substituted aryl selected from the group consisting of Formula II:

Formula II



, wherein X is a halogen, lower alkyl (C_{1-6}), lower alkoxy (C_{1-6}), cycloalkyl, cycloalkoxy, aryl (C_{6-12}), substituted aryl or hydroxy and n is 0, 1, 2, 3, or 4.

3. The method of claim 2, wherein said therapeutically-effective amount is from 20 mg/kg/day to 2500 mg/kg/day.

4. The method of claim 1, wherein said composition further comprises at least one pharmaceutically-acceptable carrier, diluent, or excipient.

5. The method of claim 1, wherein said composition comprises effective amounts of two or more compounds selected from Formulas I, III, or IV.

6. The method of claim 2, wherein said composition comprises effective amounts of two or more compounds selected from Formulas I, III, or IV.

7. The method of claim 6, wherein said therapeutically-effective amount is from 20 mg/kg/day to 2500 mg/kg/day.

8. The method of claim 2, wherein said composition further comprises at least one pharmaceutically-active carrier, diluent, or excipient.

9. The method of claim 2, wherein said composition comprises an effective amount of two or more compounds selected from the group consisting of phenylacetic acid, pharmaceutically-acceptable salts thereof, pharmaceutically-acceptable precursors thereof, and pharmaceutically-acceptable analogs thereof.

10. The method of claim 6, wherein said compounds are phenylacetylglutamine and phenylacetic acid or pharmaceutically acceptable salts thereof.

11. The method of claim 10, wherein said phenylacetylglutamine and phenylacetic acid are present in a 1:4 ratio.

12. The method of claim 10, wherein the phenylacetylglutamine is L-phenylacetylglutamine.

13. The method of claim 6, wherein said compounds are phenylacetylglutamine and iso-phenylacetylglutamine or pharmaceutically acceptable salts thereof.

14. The method of claim 13, wherein the molar ratio of phenylacetylglutamine to iso-phenylacetylglutamine is 4 to 1.

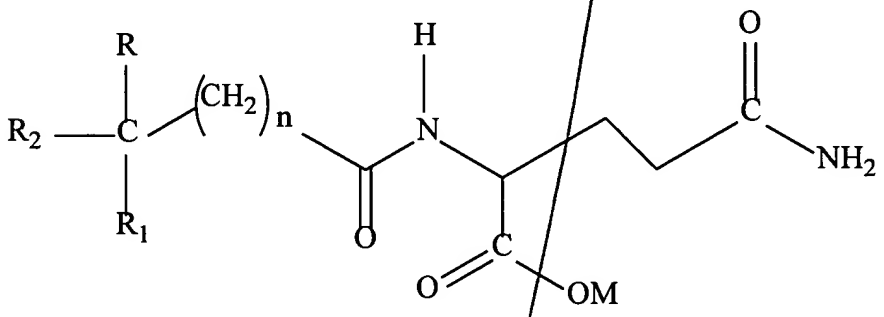
15. The method of claim 13, wherein said compounds are L-phenylacetylglutamine and L-iso-phenylacetylglutamine.

16. The method of claim 2, wherein said composition comprises an effective amount of phenylbutyric acid, phenylbutylglutamine, isophenylbutylglutamine or pharmaceutically acceptable salts thereof.

17. A pharmaceutical composition for the treatment or inhibition of hypercholesterolemia or hypertriglyceridemia, comprising:

a therapeutically-effective amount of a compound of either Formula I:

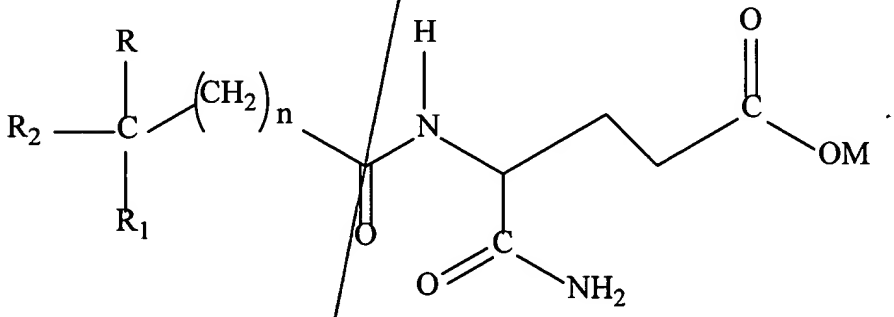
Formula I



wherein R and R_1 are independently selected from the group consisting of H, lower alkoxy (C_{1-6}), or lower alkyl (C_{1-6}); R_2 is selected from the group consisting of aryl (C_{6-12}) and substituted aryl; M is hydrogen, sodium, potassium, ammonium, diethanolamine, cyclohexylamine, a naturally-occurring amino acid of MW less than 500 kD, lower alkyl (C_{1-6}), cycloalkyl, or aryl (C_{6-12}); and n is 0-5;

Formula III:

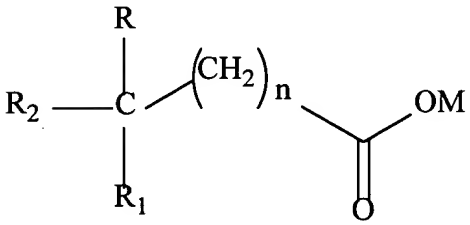
Formula III



wherein R and R_1 are independently selected from the group consisting of H, lower alkoxy (C_{1-6}), or lower alkyl (C_{1-6}); R_2 is selected from the group consisting of aryl (C_{6-12}) and substituted aryl; M is hydrogen, sodium, potassium, ammonium, diethanolamine, cyclohexylamine, a naturally-occurring amino acid of MW less than 500 kD, lower alkyl (C_{1-6}), cycloalkyl, or aryl (C_{6-12}); and n is 0-5;

or Formula IV:

Formula IV



wherein R and R_1 are independently selected from the group consisting of H, lower alkoxy (C_{1-6}), or lower alkyl (C_{1-6}); R_2 is selected from the group consisting of aryl (C_{6-12}) and substituted aryl; M is hydrogen, sodium, potassium, ammonium, diethanolamine, cyclohexylamine, a naturally-occurring amino acid of MW less than 500 kD, lower alkyl (C_{1-6}), cycloalkyl, or aryl (C_{6-12}); and n is 0-5; and,

a pharmaceutically acceptable carrier, diluent, or excipient.

18. The pharmaceutical composition of claim 17, further comprising at least one additional compound of Formula I, Formula III or Formula IV.